SPAWAR

SPAWAR

FORCEnet – *Engineering & Architecting The Navy's IT Future*

NMCI - Industry Symposium

19 Jun 2003

RADM Mike Sharp, USN
Vice Commander
Space & Naval Warfare Systems Command

Agenda

- *SPAWAR* Review
- SeaPower 21 & FORCEnet
- FORCEnet and NMCI

SPAWAR

SPAWAR - A Quick Review

One of the Navy's three major acquisition commands with 7,700 employees

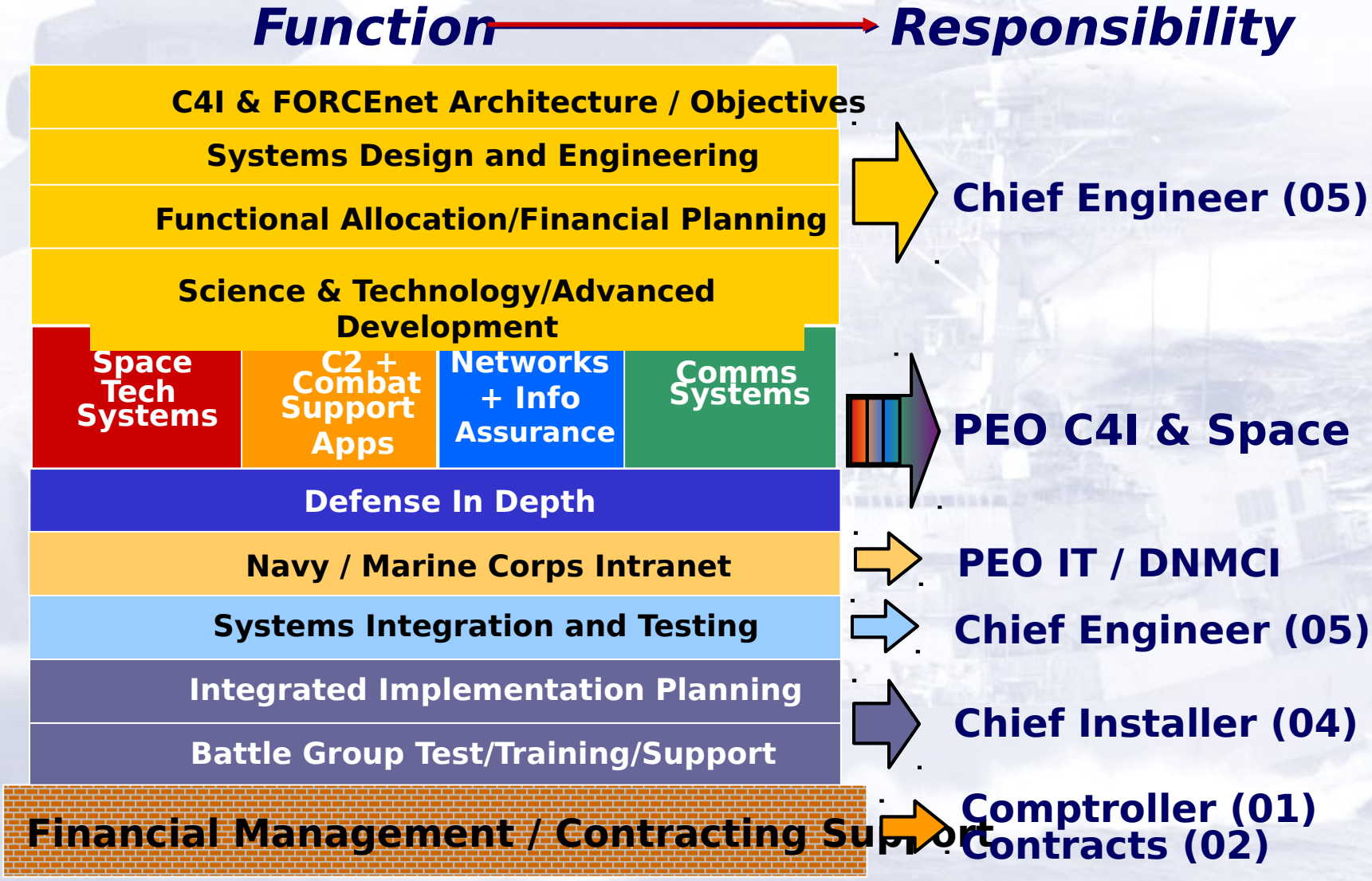
What we do…

- Partner with PEO- C4I & Space to deliver C4ISR capability to the joint warfighter
- Partner with PEO-IT & DNMCI
- Develop Navy, Joint and Coalition Interoperability
- Navy C4ISR Chief Engineer
- Navy FORCEnet Chief Architect/Assessor
- Combined TOA $4.7 Billion

The Mission

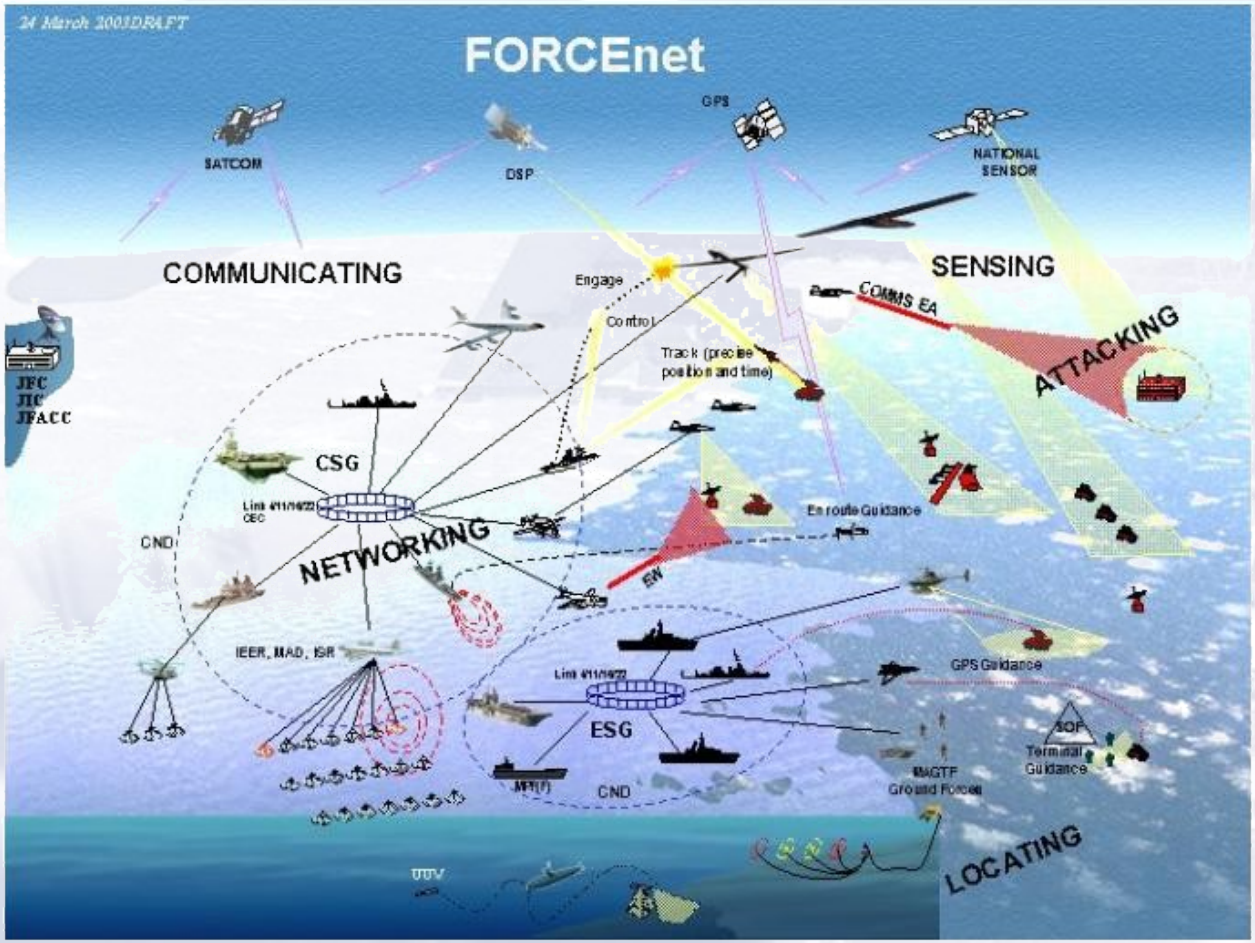
We deliver
FORCEnet
to the Joint Warfighter
through the
DEVELOPMENT,
ACQUISITION,
and
LIFE CYCLE SUPPORT
of effective, capable and integrated command, control communication, computer, intelligence, surveillance and reconnaissance, IT, and space systems.

Functional Organization



The Navy's Vision

FORCEnet Operational View



- Sea Power 21 – "Naval"
- Joint from Inception
  - GIG-BE
  - TCA
  - NCES
  - JTR
  - Others
- Commercial Standards
- Spiral Development with Sea Trial
- Warrior Focused

FORCEnet Schedule

= CNO Guidance 2003

SPAWAR | Other SYSCOMs & Commands | OPNAV | Fleet Engagemer | C Completed

CY 2003

Focus Areas												
Assessment	C Wk of14 Apr: POM05 Data Link Assessment	C 24 Apr: Assessment Team Identify Milestones	C 8 May: Stakeholder Buy-in to Assessment Domain & Approach	5 22 May: M&S and Cost Analysis Results	6 3 Jun: FBE KILO Input to Fn	6 5 Jun: POM 06 Assessment Draft for Review by Stakeholder	6 27 Jun: POM 06 Assessments to CNO 704B			9 30 Sep: IPD Execution Assessment	10 22 Oct: N6-N7 POM 06 Brief to CNO	
Architecture/ Standards	C 2 Apr: Fn GRA Vision V1.0		C 5-7 May: NNWC Architecture Conference	C 1 May: Fn Architecture & Standards Preliminary Draft Document	5 15 May: Fn GRA Vision V1.1		6 15 Jun: Fn Architecture & Standards V1.0				10 1 Oct: Fn Master Plan V1.0	
Campaign Plan	C 8-11 Apr: Campaign Plan Build Conf	C Wk of 21 Apr: Brief Fn Leadership			5 31 May: Campaign Plan Completed							
Quick Successes (Warfighting Capabilities)	C 22-23 Apr: Fn IPD Initial Planning Conference	C 28 Apr – 9 May: Fn LOE 03-2				6 17-18 Jun: Fn IPD Mid Planning Conference		8 4-8 Aug: Fn IPD Final Planning Conference	9 3-10 Sep: IPD in JTFW Regional Test 2	9 25-30 Sep: Fn IPD Execution		

Architectural Process

ovt. Ref. Arch. Vision
ersion 1.0 – 02 Apr 03
ersion 1.1 – 15 May 03

Master Plan Version 1.0 – 1 Oct 03

Architecture & Standards
ersion 1.0 – 1 May 03

OPNAV & ASN(RDA) Review

Industry Review & Comment

Distributed Services IP- Based Network

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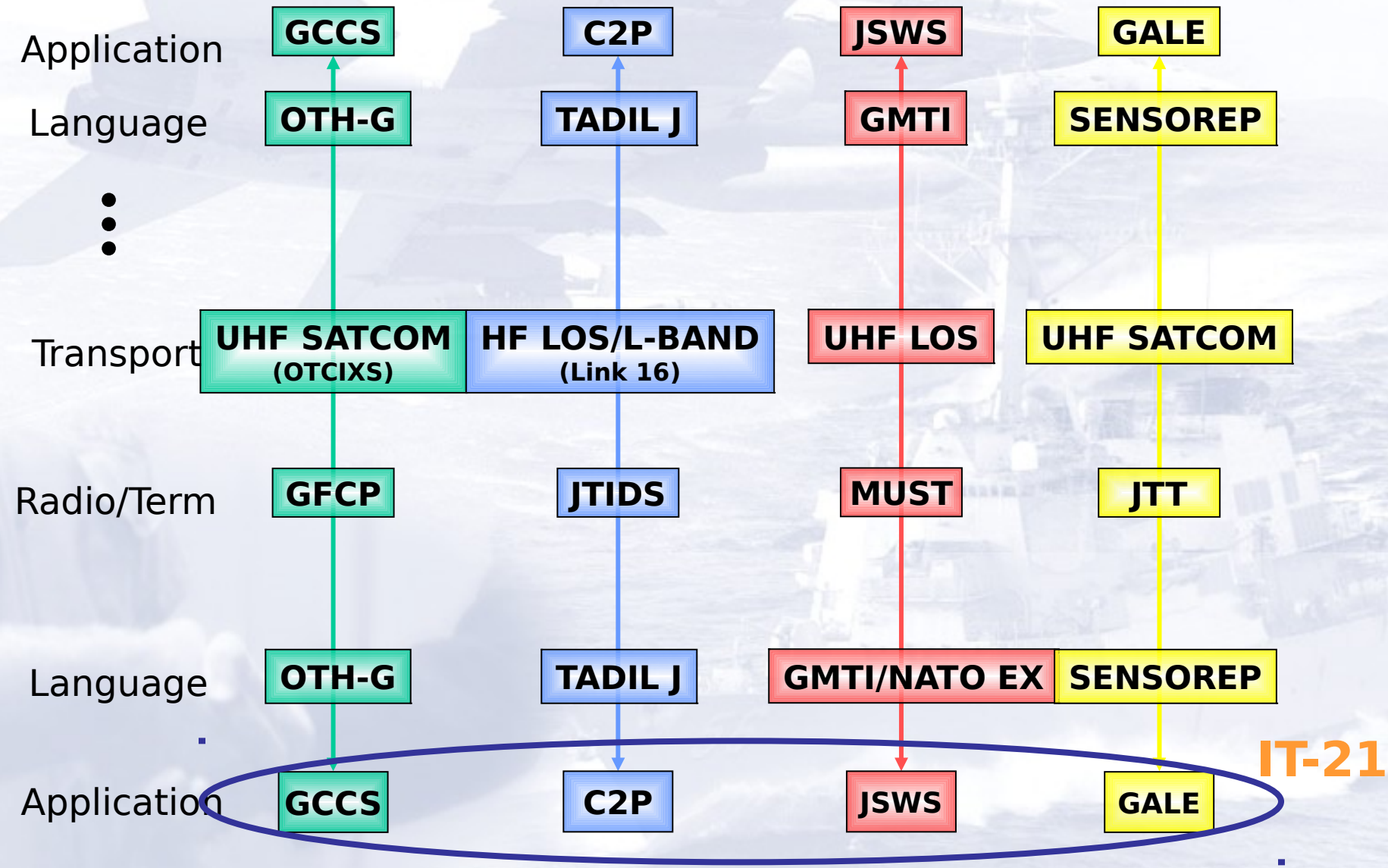
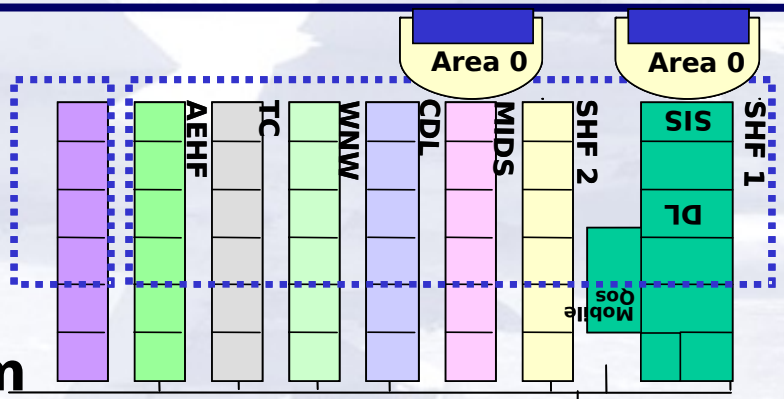
Network Data Integration



Network Data Integration



Services, not Platforms

Separation of Interface from Implementation

Protocol Neutral

Language

XML or Language Translation

Service

C4I Service

C2 Link Service

MTI Service

SIGINT Service

Architectural Process

ovt. Ref. Arch. Vision
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ersion 1.0 – 1 May 03

OPNAV & ASN(RDA) Review

Industry Review & Comment

Distributed Services

IP- Based Network

JTF Connectivity Today:
Based on Wireline Networking Principles

Tier 3 - Mobile SATCOM / Microwave (Trunk Links)
Tier 2 - Mobile LOS Network (Backbone Subnet Links)
Tier 1 - Mobile Handheld (Subscriber Subnet Links)

Air Force
Area 0

Navy Area 0

Army Area 0

Marines Area 0

UAV Tier II+

G

Sub

ARG

BG

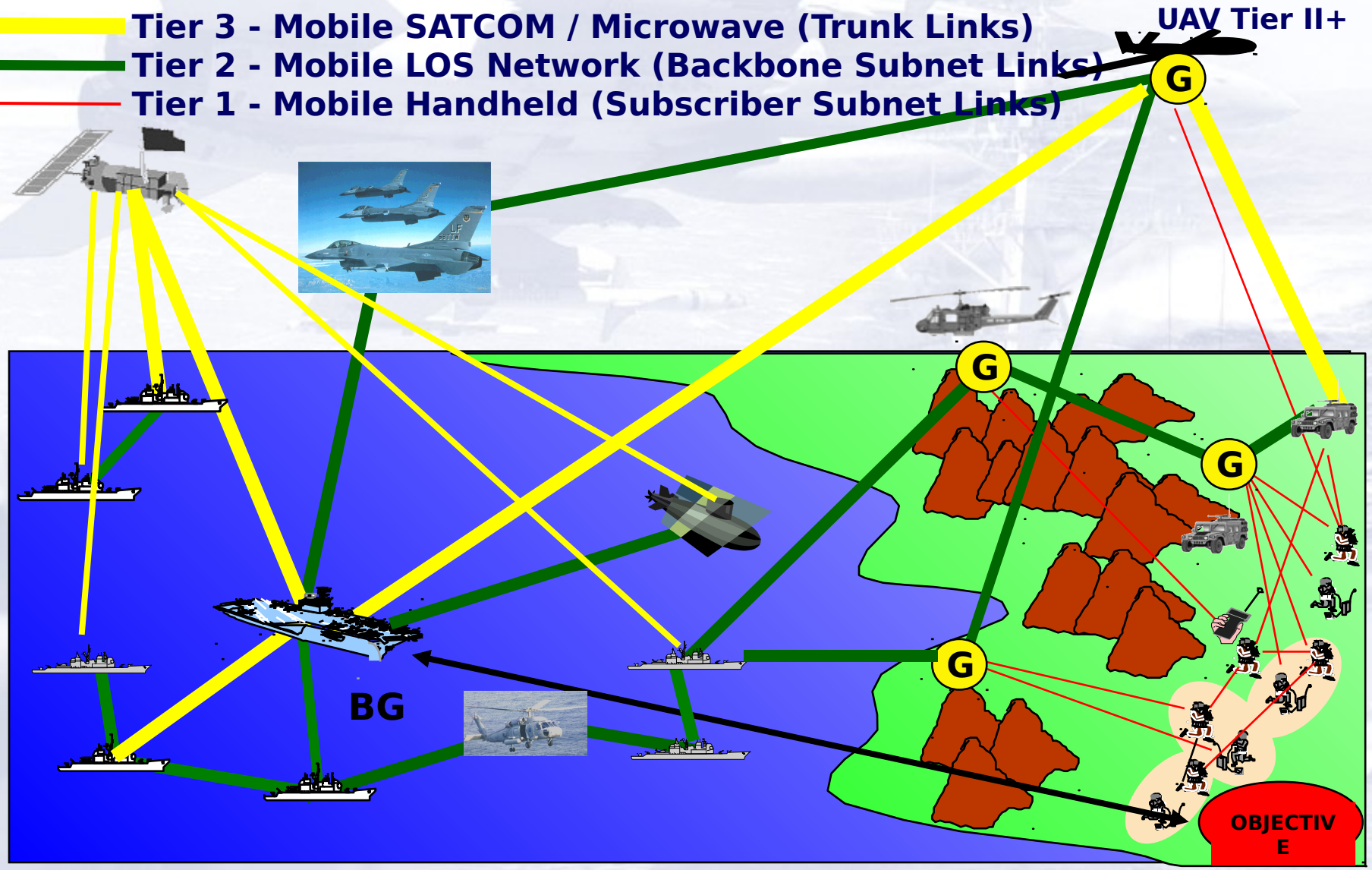
ARG

This is the way we will fight, this is the communications capability we want!

Tier 3 - Mobile SATCOM / Microwave (Trunk Links)

Tier 2 - Mobile LOS Network (Backbone Subnet Links)

Tier 1 - Mobile Handheld (Subscriber Subnet Links)



FORCEnet Challenges

- Multi-Level Security
- Information Assurance
- IP Quality of Service
- IP for Mobile Users
- Leverage Experimentation & Pilots
- Explore large scale integration approach

Agenda

- *SPAWAR* Review
- SeaPower 21 & FORCEnet
- **FORCEnet and NMCI**

Tying it together

Current Readiness

Future Readiness

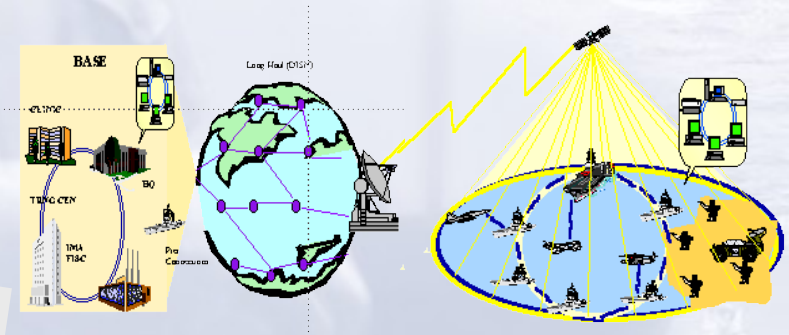
INFRASTRUCTURE

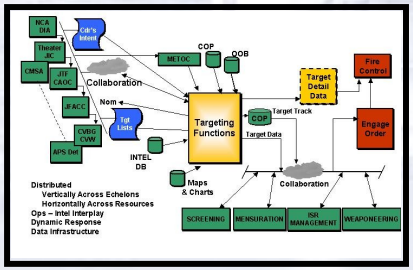
DECISION MAKING

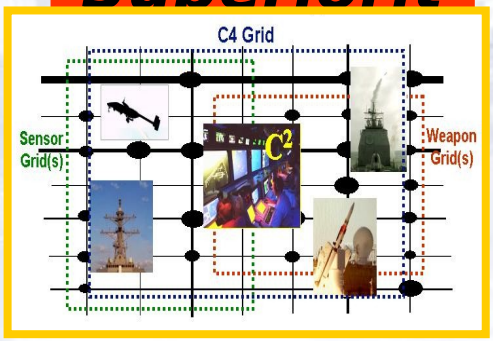
HORIZONTAL INTEGRATION

NMCI + **IT-21** + **Information Fusion** = **FORCEnet**

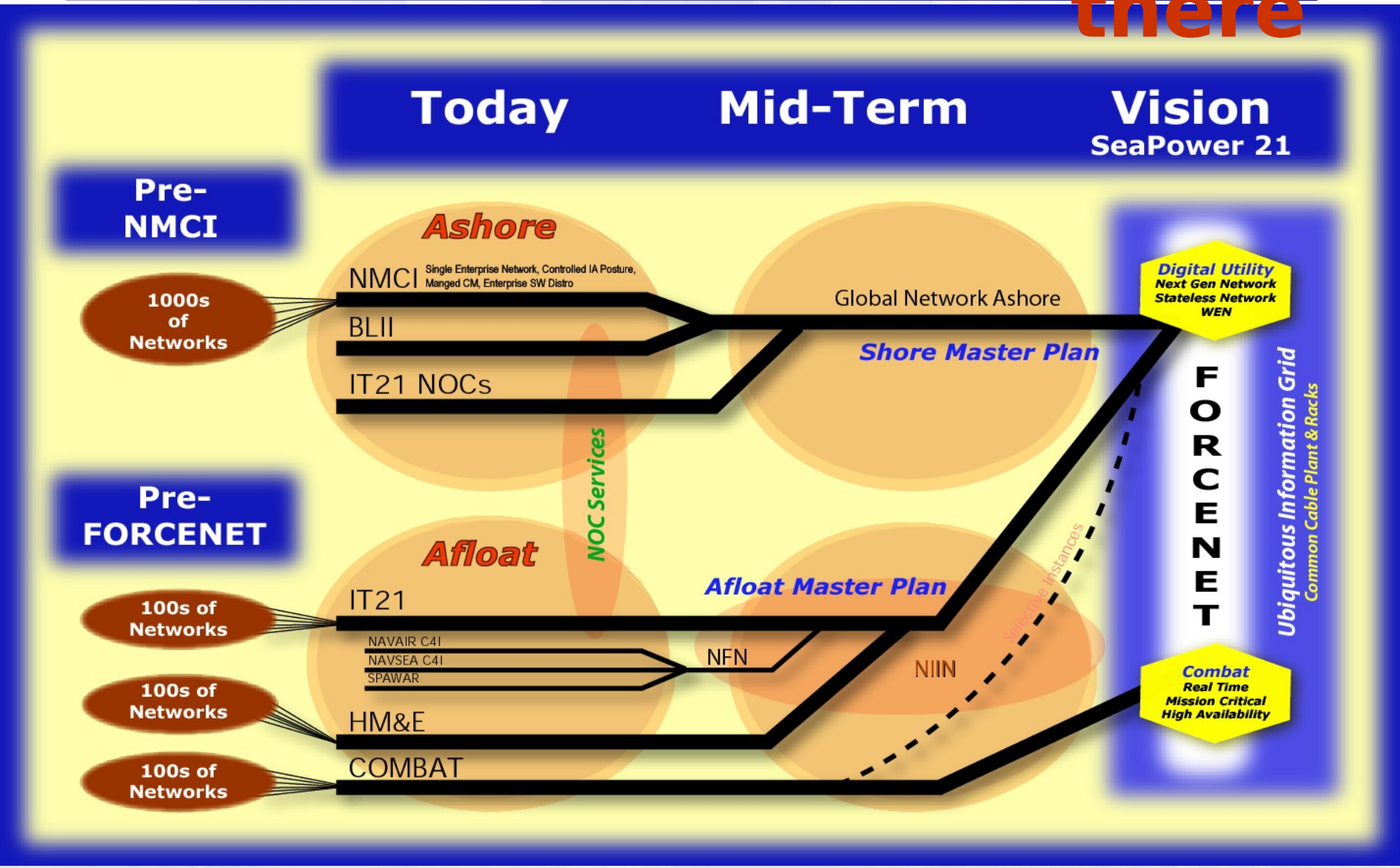
Superiority



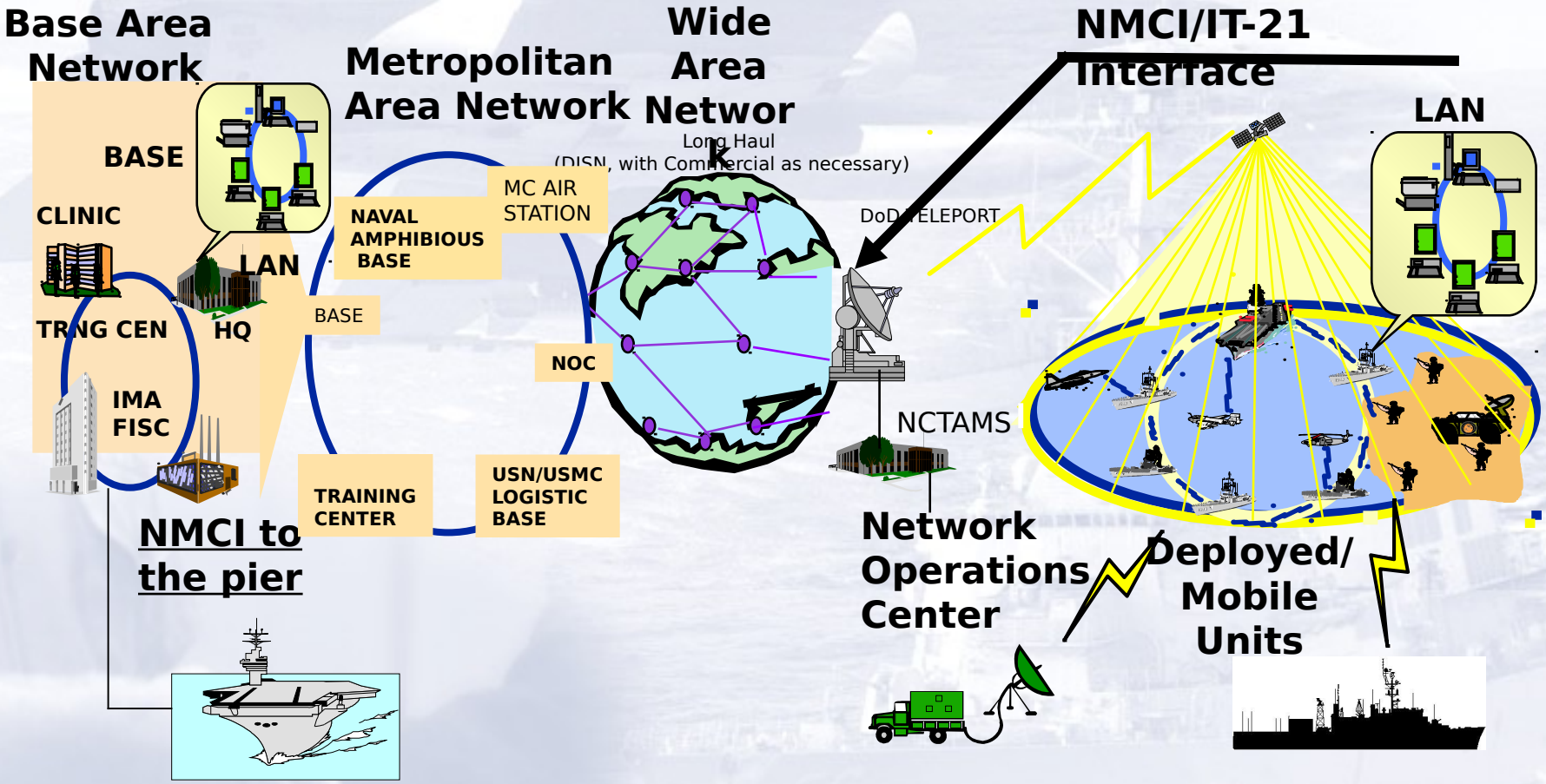




Getting from here to there

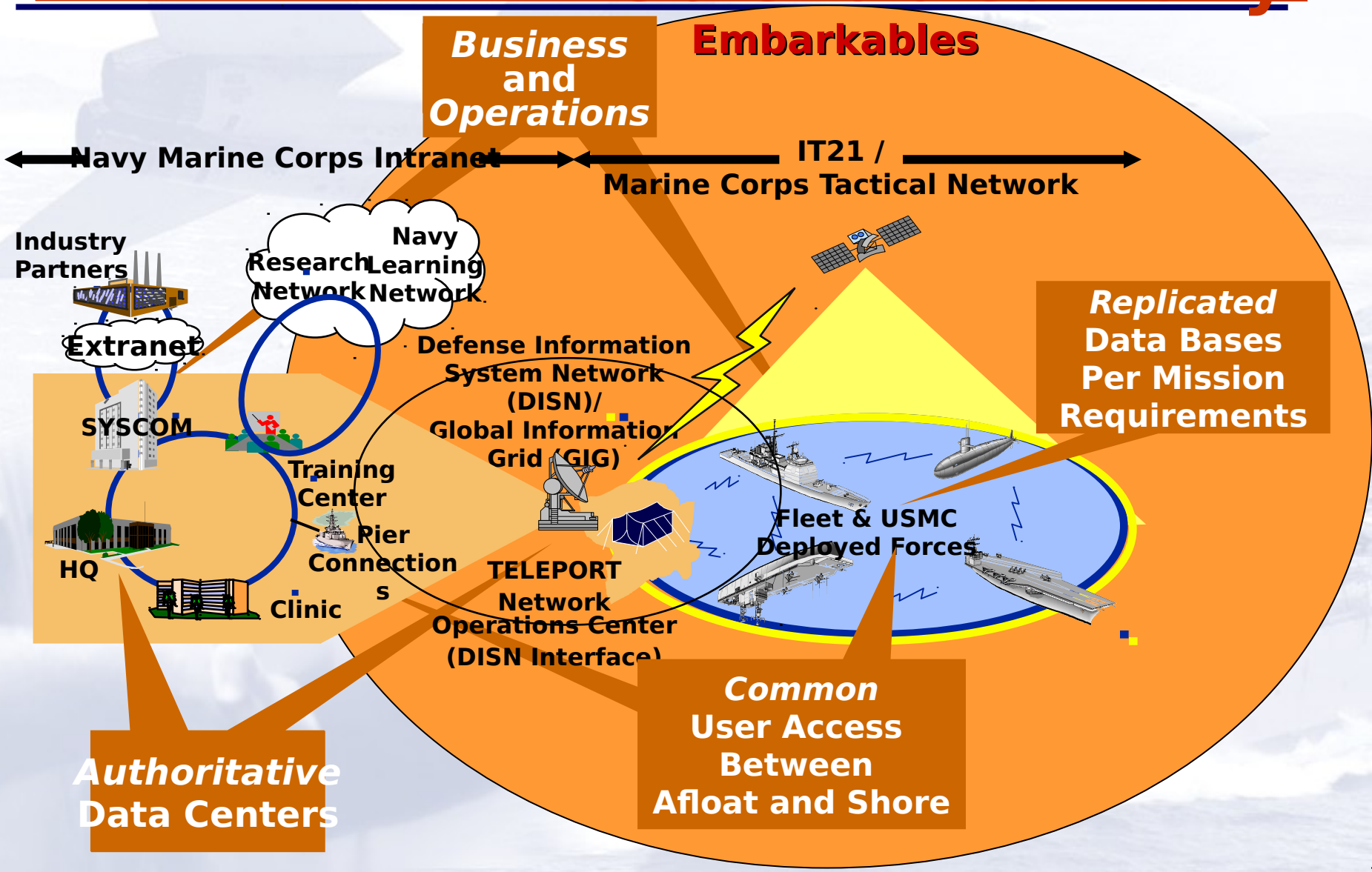


NMCI & Tactical Networks Interface



End-to-End Connectivity

NMCI will deliver to the Web-enabled Navy



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CNO's Philosophy

"I want everyone here in industry to remember that Vern Clark said here today that we are never ever building another capability that doesn't fit into a FORCENet architecture for the future that ensures everybody is netted and connected. That is the future."

Admiral Vern Clark
Sea Air Space Exposition
Washington, D.C.
April 17, 2003

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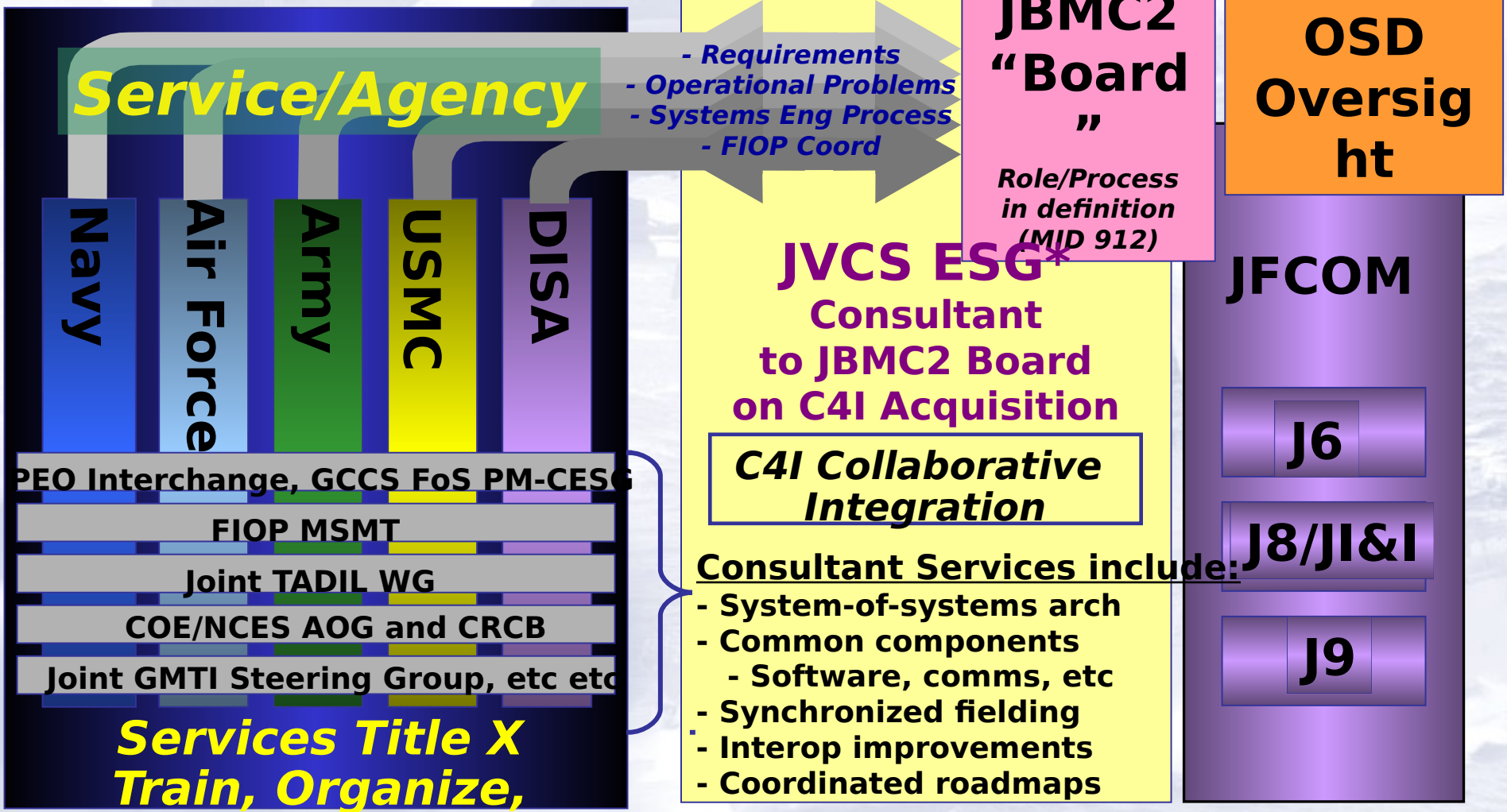
Backup

Building C4I Joint Team

DRAFT



* Flag-level Executive Steering Group, integrate/transform JCIG, PEO Intercha